No. 200300286

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

State of Oregon, by and through the State Board of Higher Education on behalf of Oregon State University

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR [illegible] VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE [illegible] STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED [illegible] SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS A[illegible] 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'ORCF-101'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twentieth day of July, in the year two thousand and four.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions*

Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
State of Oregon, by and through the State Board of Higher Education on behalf of Oregon State University

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
OR2010051

3. VARIETY NAME
ORCF-101

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
c/o Office of Technology Transfer
Oregon State University
312 Kerr Administration Bldg.
Corvallis, OR 97331-2140

5. TELEPHONE *(include area code)*
(541) 737-0674

6. FAX *(include area code)*
(541) 737-3093

FOR OFFICIAL USE ONLY

PVPO NUMBER
200300286

FILING DATE
July 22, 2003

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
Non-profit public institution of higher education

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
Oregon

9. DATE OF INCORPORATION

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*
William Hostetler, Director
Office of Technology Transfer
Oregon State University
312 Kerr Administration Bldg.
Corvallis, OR 97331-2140

FEES RECEIVED
FILING AND EXAMINATION FEES:
$ 3652.00
DATE 7/22/2003
CERTIFICATION FEE:
$ 432.00
DATE 6/14/2004

11. TELEPHONE *(Include area code)*
(541) 737-0674

12. FAX *(Include area code)*
(541) 737-3093

13. E-MAIL
William.Hostetler@oregonstate.edu

14. CROP KIND *(Common Name)*
soft white common wheat

15. GENUS AND SPECIES NAME OF CROP
Triticum aestivum

16. FAMILY NAME *(Botanical)*
Graminacae

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☐ YES ☒ NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED
(Follow instructions on reverse)

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of Variety
d. ☒ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☒ Filing and Examination Fee ($3,652), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *See Section 83(a) of the Plant Variety Protection Act)*
☒ YES *(If "yes", answer items 20 and 21 below)* ☐ NO *(If "no", go to item 22)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? ☐ YES ☒ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? ☐ YES ☒ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☐ YES ☒ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☒ YES ☐ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

24. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER
William Hostetler

NAME *(Please print or type)*
William W. Hostetler

CAPACITY OR TITLE
Director Technology Transfer

DATE
7/14/03

SIGNATURE OF OWNER

NAME *(Please print or type)*

CAPACITY OR TITLE

DATE

ST-470 (02-10-2003) designed by the Plant Variety Protection Office using Word 2000. Replaces former versions of ST-470, which are obsolete.

(See reverse for instructions and information collection burden statement)

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INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $3,652 ($432 filing fee and $3,220 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of $432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM

18a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

19. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

22. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

23. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

21. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

22. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

23. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

U. S. Patents 6,211,438; 6,211,439; 6,222,100 and others pending for Clearfield herbicide tolerance technology.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed.htm

ST-470 (02-10-2003) designed by the Plant Variety Protection Office with Word 2000. Replaces former versions of ST-470, which are obsolete.

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PVP Application for ORCF-101

Exhibit A - Origin and Breeding History

ORCF-101 is a semidwarf soft white winter wheat derived from the three-way cross 'CV-9804'/'Malcolm'//'OR939481'. CV-9804, also known as 'FS-4', is the donor of the Clearfield herbicide tolerance trait, developed through mutagenesis of the cultivar 'Fidel'. OR939481 is a selection from the cross 'Stephens'/'Madsen'. The initial single cross of CV-9804/Malcolm was made in spring of 1996 followed by the topcross with OR939481 in 1997; both crosses were made at the Oregon State University Hyslop Agronomy Farm. ORCF-101 is an F2 derived line, identified as a single F2 plant in 1999 when it was selected from thin-seeded bulk plot at the Columbia Basin Agricultural Research Center after application of the herbicide. The selection was made based on plant semi-dwarf stature, spike size and fertility, maturity, and tolerance to imidazonlinone herbicide. The selection was given the experimental number OR2010051 in 2000, when it was grown in as a single unreplicated yield trial plot at Hyslop farm. In 2000, it was evaluated and selected for its grain yield, maturity, stature, phenotypic uniformity, grain quality and test weight, and response to local diseases including Stripe rust (Puccinia striiformis) and Septoria leaf blotch.

In 2001, ORCF-101 was evaluated in replicated yield trials at Adams, Moro, and Corvallis, OR. Selection was based on herbicide tolerance and response to Stripe rust, root diseases, grain yield, grain quality, plant height, maturity, and phenotypic uniformity.

In 2002, ORCF-101 was evaluated in OSU breeding trials, Oregon Statewide Variety Trials, and Northern Idaho Variety Trials. These trials were not sprayed with the imidazonlinone herbicide. Herbicide tolerance was evaluated in separate replicated trials at two locations in Oregon.

In 2001 and 2002, ORCF-101 was evaluated and selected for end-use quality traits in comparison with major varieties Stephens and Madsen. The evaluations were conducted through the USDA-ARS Western Wheat Quality Laboratory in Pullman, Washington on grain provided from Oregon yield trials. Traits measured include kernel hardness, kernel weight, break flour and total flour yield, flour ash, flour protein, water absorption, cookie diameter, and sponge cake volume.

In fall 2001, approximately 1,500 heads of ORCF-101 were threshed, screened for seed color and seed size, and provided to Washington Foundation Seed for production of Breeder seed. These were planted as individual headrows and off-type rows were removed prior to bulk harvest of Breeder seed.

Evidence of Uniformity and stability

ORCF-101 has been observed to be uniform and stable. In 2001 and 2002, uniformity and stability were evaluated in 15 replicated yield trials throughout Oregon and Idaho.

ORCF-101 may contain up to 5 red kernels per pound in Breeders, Foundation, Registered, or Certified classes of seed multiplication. ORCF-101 also may contain up to a total of 1 in 10,000 combined of the naturally occurring variants: plants that are 8 to 15 cm taller or plants with bronze (red or tan) chaff spikes. These variants described are distinct within the variety and are stable and predictable with a degree of reliability comparable to other varieties of the same kind, and within recognized tolerances, when the variety is reproduced or reconstructed, and was originally part of the variety when released.

To further determine variants in kernel color, a phenol staining reaction was determined. It was observed that 38% of the kernels stained are ivory, 7% are fawn, and 55% are light brown. No brown or brown-black staining kernels were observed.

Exhibit B - Statement of Distinctness

ORCF-101 is most similar to the commercial varieties Weatherford, Stephens, Madsen, and Malcolm. All are of the soft white market class, winter type, semi-dwarf, awned and have similar levels of winterhardiness.

ORCF-101 has the 'Als1' gene for tolerance to imidazolinone herbicides. The 'Als1' gene is a form of the acetohydroxyacid synthesase (AHAS) gene which has been altered through chemical mutagenesis. Weatherford, Stephens, Madsen, and Malcolm do not carry the 'Als1' gene and are killed or severely damaged if treated with imidazolinone herbicide at the labeled rates.

ORCF-101 further differs from Stephens based on plant height. ORCF-101 differs from Tubbs based on the end-use quality traits flour ash, mixograph water absorption, and cookie diameter. ORCF-101 differs from Madsen based on milling score and kernel weight.

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT C
(*Wheat*)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*Triticum* spp.)

NAME OF APPLICANT(S) State of Oregon, Acting by and through the State Board of Higher Education on behalf of Oregon State University

ADDRESS (*Street and No. or RD No., City, State, and Zip Code*)
c/o Office of Technology Transfer
Oregon State University
312 Kerr Administration Bldg.
Corvallis, OR 97331-2140

FOR OFFICIAL USE ONLY

PVPO NUMBER 200300286

VARIETY NAME ORCF-101

TEMPORARY OR EXPERIMENTAL DESIGNATION OR2010051

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g. [0][9] or [0][9]) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____

Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

[1]
1=Common
2=Durum
3=Club
4=Other (SPECIFY) : _____

2. VERNALIZATION:

[2]
1=Spring
2=Winter
3=Other (SPECIFY) : _____

3. COLEOPTILE ANTHOCYANIN:

[1] 1 = Absent 2 = Present

4. JUVENILE PLANT GROWTH:

[2] 1 = Prostrate 2 = Semi-erect 3 = Erect

5. PLANT COLOR (boot stage):

[2]
1 = Yellow-Green
2 = Green
3 = Blue-Green

6. FLAG LEAF (boot stage):

[1] 1 = Erect
2 = Recurved

[2] 1 = Not Twisted
2 = Twisted

[1] 1 = Wax Absent
2 = Wax Present

7. EAR EMERGENCE:

[1][4][7] Number of Days (Average)

[ ][2] Number of Days Earlier Than Madsen *

Same as _____ *

[ ][2] Number of Days Later Than Stephens *

* Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial

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8. ANTHER COLOR:

[1] 1 = Yellow
2 = Purple

9. PLANT HEIGHT (from soil to top of head, excluding awns):

[ ][9][4] cm (Average)

[ ][4] cm Taller Than Stephens *

Same as _____ *

[ ][ ] cm Shorter Than _____ *

10. STEM:

A. ANTHOCYANIN

[1] 1= Absent
2 = Present

B. WAXY BLOOM

[1] 1 = Absent
2 = Present

C. HAIRINESS
(last internode of rachis)

[1] 1 = Absent
2 = Present

D. INTERNODE

[1] 1 = Hollow 2 = Semi-solid 3 = Solid

[4] Number of Nodes

E. PEDUNCLE

[3] 1 = Erect 2 = Recurved 3 = Semi-erect

[3][4] cm Length
(3 cm shorter than
Weatherford)

F. AURICLE

[1] Anthocyanin 1 = Absent 2 = Present

[1] Hair 1 = Absent 2 = Present

11. HEAD (at Maturity):

A. DENSITY

[2] 1 = Lax
2 = Middense (Laxidense)
3 = Dense

B. SHAPE

[1] 1 = Tapering
2 = Strap
3 = Clavate
4 = Other (SPECIFY):_____

C. CURVATURE

[2] 1 = Erect
2 = Inclined
3 = Recurved

D. AWNEDNESS

[4] 1 = Awnless
2 = Apically Awnletted
3 = Awnletted
4 = Awned

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12. GLUMES (at Maturity):

A. COLOR

[1]
1 = White
2 = Tan
3 = Other (SPECIFY) : _____

B. SHOULDER

[2]
1 = Wanting 2 = Oblique
3 = Rounded 4 = Square
5 = Elevated 6 = Apiculate
7 = Other (SPECIFY): _____

C. SHOULDER WIDTH

[2]
1 = Narrow
2 = Medium
3 = Wide

D. BEAK

[3]
1 = Obtuse
2 = Acute
3 = Acuminate

E. BEAK WIDTH

[2]
1 = Narrow
2 = Medium
3 = Wide

F. GLUME LENGTH

[2]
1 = Short (ca. 7mm)
2 = Medium (ca. 8mm)
3 = Long (ca. 9mm)

G. WIDTH

[2]
1 = Narrow (ca. 3mm)
2 = Medium (ca. 3.5mm)
3 = Wide (ca. 4mm)

13. SEED

A. SHAPE

[2]
1 = Ovate
2 = Oval
3 = Elliptical

B. CHEEK

[2]
1 = Rounded
2 = Angular

C. BRUSH

[2]
1 = Short
2 = Medium
3 = Long

[1]
1 = Not Collared
2 = Collared

D. CREASE

[3]
1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

[2]
1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

E. COLOR

[1]
1 = White
2 = Amber
3 = Red
4 = Other (SPECIFY): _____

F. TEXTURE

[2]
1 = Hard
2 = Soft
3 = Other (SPECIFY): _____

G. PHENOL REACTION (*see instructions*):

[3/2]
1 = Ivory
2 = Fawn
3 = Light Brown
4 = Dark Brown
5 = Black

55% Light Brown
38% Ivory
7% Fawn

H. SEED WEIGHT

[3][8] g/1000 seed (Whole number only)

I. GERM SIZE

[2]
1 = Small
2 = Midsize
3 = Large

14. Disease : (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED 200300286

[0]	Stem Rust *(Puccinia graminis* f. sp. *tritici)*	[1]	Leaf Rust *(Puccinia recondita* f. sp. *tritici)* field races
[3]	Stripe Rust *(Puccinia striiformis)* field races	[0]	Loose Smut *(Ustilago tritici)*
[0]	Tan Spot *(Pyrenophora tritici-repentis)*	[0]	Flag Smut *(Urocystis agropyri)*
[0]	Halo Spot *(Selenophoma donacis)*	[0]	Common Bunt *(Tilletia tritici* or *T. laevis)*
[0]	*Septoria nodorum* (Glume Blotch)	[0]	Dwarf Bunt *(Tilletia controversa)*
[0]	*Septoria avenae* (Speckled Leaf Disease)	[0]	Karnal Bunt *(Tilletia indica)*
[1]	*Septoria tritici* (Speckled Leaf Blotch)	[2]	Powdery Mildew *(Erysiphe graminis* f. sp. *tritici)*
[0]	Scab (*Fusarium* spp.)	[0]	"Snow Molds"
[0]	"Black Point" (Kernel Smudge)	[3]	Common Root Rot *(Fusarium, Cochliobolus* and *Bipolaris* spp.*)*
[0]	Barley Yellow Dwarf Virus (BYDV)	[0]	Rhizoctonia Root Rot *(Rhizoctonia solani)*
[0]	Soilborne Mosaic Virus (SBMV)	[0]	Black Chaff *(Xanthomonas campestris* pv. *translucens)*
[0]	Wheat Yellow (Spindle Streak) Mosaic Virus	[0]	Bacterial Leaf Blight *(Pseudomonas syringae* pv. *syringae)*
[0]	Wheat Streak Mosaic Virus (WSMV)	[ ]	Other (SPECIFY) _____
[ ]	Other (SPECIFY) _____	[ ]	Other (SPECIFY) _____
[ ]	Other (SPECIFY) _____	[ ]	Other (SPECIFY) _____
[ ]	Other (SPECIFY) _____	[ ]	Other (SPECIFY) _____

15. INSECT: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

[0]	Hessian Fly *(Mayetiola destructor)*	[ ]	Other (SPECIFY) _____
[0]	Stem Sawfly *(Cephus* spp.)	[ ]	Other (SPECIFY) _____
[0]	Cereal Leaf Beetle *(Oulema melanopa)*	[ ]	Other (SPECIFY) _____
[0]	Russian Aphid *(Diuraphis noxia)*	[ ]	Other (SPECIFY) _____

15. INSECT: *Continued* (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed) 200300286

[0]	Greenbug *(Schizaphis graminum)*	[ ]	Other (SPECIFY) _____
[0]	Aphids	[ ]	Other (SPECIFY) _____

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS

WHEAT DESCRIPTOR ILLUSTRATIONS

Section numbers correspond to the numbers of the sections on the form.

4 EARLY PLANT GROWTH HABIT:

1 Prostrate 2 Intermediate 3 Erect

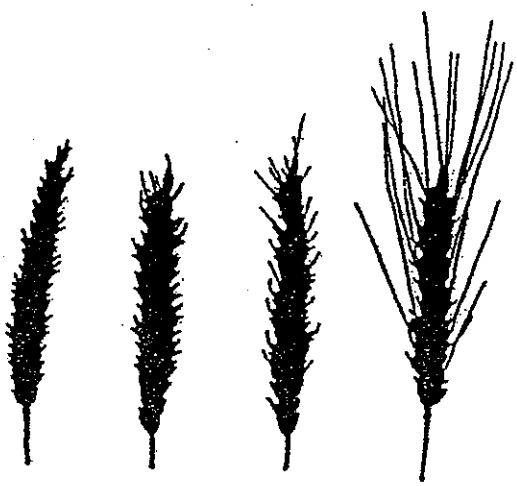
10 STEM INTERNODE X-SECTION.

1 Hollow 2 Semi-Solid 3 Solid

11 SPIKE SHAPE

1 Tapering 2 Oblong 3 Clavate 4 Elliptical

11 AWNEDNESS:

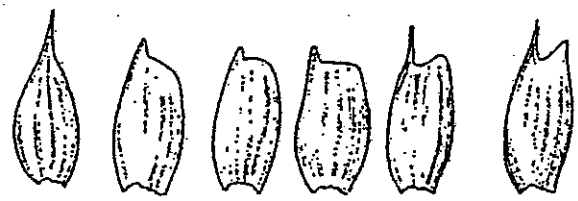


1 Awnless 2 Apically Awnleted 3 Awnleted 4 Awned

12 BEAK SHAPE:

1 Obtuse 2 Acute 3 Acuminate

12 SHOULDER SHAPE:



1 Wanting 2 Oblique 3 Rounded 4 Square 5 Elevated 6 Apiculate

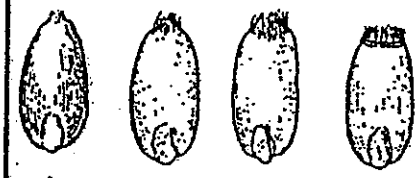
13 SEED SHAPE:

1 Ovate 2 Oval 3 Elliptical

13 CHEEK SHAPE:

1 Rounded 2 Angular

13 BRUSH SIZE:



1 Small 2 Midsized 3 Large Collared

13 BRUSH HAIR LENGTH

1 Short 2 Medium 3 Long

GERM (EMBRYO) SIZE:

1 Small 2 Midsized 3 Large

13 SEED CREASE WIDTH:

1 Narrow 2 Mid-Wide 3 Wide

13 SEED CREASE DEPTH:

1 Shallow 2 Mid-Deep 3 Deep

REFERENCE

Briggle, L.W. and L.P. Reitz. 1963. Classification of Triticum Species and of Wheat Varieties Grown in the United States. Technical Bulletin 1278. United States Department of Agriculture.

Exhibit D. Additional Description of the Variety

ORCF-101 possesses Clearfield™ herbicide resistance technology through a form of the acetohydroxyacid synthesase gene that has been altered through chemical mutagenesis . The altered gene is not affected by Beyond™, an imidazolinone-based herbicide, at labeled application rates. Clearfield™ wheat technologies are owned by BASF Corporation and protected under U.S. Patent law (U.S. Patents 6,211,438; 6,211439; 6,222100, and others pending). The Clearfield™ herbicide resistance technology is licensed to Oregon State University through contractual agreement with the BASF Corporation.

Herbicide tolerance of ORCF-101 was evaluated at two locations in 2002. At the OSU Pendleton research site, Beyond™ was spring applied at 4, 6, and 12 oz rates. There was no significant reduction in grain yield for either ORCF-101 or the herbicide resistant parent, CV-9804. Plots of the check variety Stephens were effectively killed with each herbicide application. A trial near Athena, OR, conducted under contract by BASF, showed that ORCF-101 had commercially acceptable crop safety ratings and similar tolerance to CV-9804 based on fall and spring applications of Beyond™ at 4, 8, or 16 oz rates. There was evidence of crop damage and yield reduction in ORCF-101 at the spring-applied 16 oz rate. However, yields were still comparable to CV-9804 and there was no evidence of damage in the fall 16 oz treatment. The 16 oz rate represents four times the recommended and labeled use rate for Beyond™. Herbicide tolerance of ORCF-101 was further evaluated at two locations in 2003. Herbicide tolerance and crop response ratings of ORCF-101 to Beyond™ spring applied at 4, 6, and 12 oz rates were again similar to CV-9804 at both locations.

Table 1. Grain yield summary (bu/a)

	2001 Breeding trials			2002 Breeding trials				Brd Trials
	Pendleton	Moro	Corvallis	Pendleton	Moro	Corvallis	Pendleton Efficacy	**Ave. Yield**
							0,2,4 oz	**5 sites**
FS-4	90	51.4	57.5	92.32	49.57	97.2	85.3	**69.6**
Stephens	.	44	66.3	82.74	52.1	102.4	0	**69.5**
Madsen	.	53.2	137.2	87.14	42.87	101.4	.	**84.4**
Tubbs	.	.	.	94.38	50.97	110	.	**.**
Weatherford	.	.	.	.	.	.	.	**.**
OR2010051	91.3	54.9	144	78.38	48.06	109.9	69	**87**
LSD	16.4	18.1	67.2	8.3	6.4	21.6	.	
CV	12.1	21.8	74	7.53	7.89	15.5	9.5	

Table 1. Grain yield summary (bu/a), continued.

	2002 Oregon Statewide Variety Trial						**OR-SVT**	2002 N. Idaho Variety Trial				**ID-SVT**	**All site**
	Pendleton	Moro-NoT	Hermiston	Ontario	Corvallis	Madras	**Ave Yield**	Nezperce	Lewiston	Genesee	Bonners Ferry	**Ave. Yield**	**Ave. Yield**
							6-site					**4-site**	**15 sites**
FS-4	.	.	.	.	.		**.**	.	.	.	.	**.**	**.**
Stephens	85	39	123	123	101	121	**98.7**	75	103	96	114	**97**	**88.5**
Madsen	91	38	118	130	119	122	**103**	71	103	92	119	**96.2**	**95**
Tubbs	90	38	116	131	110	111	**99.3**	77	113	102	114	**101.5**	**.**
Weatherford	76	40	137	131	125	115	**104**	.	.	.	.	**.**	**.**
OR2010051	90	39	130	134	106	113	**102**	70	107	99	114	**97.5**	**95.8**
LSD	15	n.s.	26	20	20	20	**.**	5	9	7	8	**.**	**.**
CV	11.6	18.7	13	9.8	11.4	10.9	**.**	5	7	6	6	**.**	**.**

Table 2. Test weight summary (lb/bu)

	2002 Oregon Statewide Variety Trial						2002 N. Idaho Variety Trial				
	Pendleton	Moro-NoT	Hermiston	Ontario	Corvallis	Madras	Nezperce	Lewiston	Genesee	Bonners Ferry	**Ave Test Wt. 10 site**
FS-4	.	.	.	.	.	.	.	.	.	.	.
Stephens	62	58.7	62.5	59.7	63	60.4	57.7	61.1	56.2	55.7	**59.7**
Madsen	60.2	59.7	59.2	60.5	61.7	57.9	57.8	61.3	56.7	55.8	**59.1**
Tubbs	58.5	57.5	62.7	59.8	61.7	59.7	55.2	59.6	56	54.6	**58.5**
Weatherford	58.3	58.1	60.7	60.5	61.3	59.3	.	.	.	.	.
OR2010051	58.9	58.9	59.7	60.7	60	57.5	56.2	60.8	56.4	56.7	**58.6**

Table 3. Kernel weight and grain protein summary.

	2002 Oregon Statewide Variety Trial - Kernel Wt. (gm)							2002 Oregon Statewide Variety Trial - Grain protein						
	Pendleton	Moro-NoT	Hermiston	Ontario	Corvallis	Madras	**Average 5-site**	Pendleton	Moro-NoT	Hermiston	Ontario	Corvallis	Madras	**Ave. 5-site**
FS-4														
Stephens	32.5	25.6	33.8	49.5	57.8	26.3	**37.6**	11	10.9	9.8	7.7	8.5	11.3	**9.7**
Madsen	29.8	28.1	33.1	39.1	42.6	27.3	**33.3**	11.5	10.9	11	7.6	8.6	11.2	**10.1**
Tubbs	31.9	25.4	36.9	43.3	49.5	28.6	**35.9**	11.4	9.8	9.6	7.8	8.3	11.6	**9.8**
Weatherford	28.3	28.5	40.2	40.2	47.3	28.3	**35.5**	12.4	10.7	10.1	7.7	8.4	11.9	**10.2**
OR2010051	32	30.8	38.2	44.3	50.6	30.2	**37.7**	11.5	10.2	11.2	8.4	9	10.2	**10.1**

Table 4. Plant height and heading date summary.

	2002 Oregon Statewide Variety Trial - Plant ht. (inch)						2002 Plant Ht., in		Plant Ht.	02 OR SVT - Heading date			Heading	Heading
	Pendleton	Moro-NoT	Hermiston	Ontario	Corvallis	Madras	Corvallis	Pendleton	Average 8-site	Pendleton	Hermistor	Madras	2002 Corvallis	Ave 4-site
FS-4	.	.	.	.	.	.	43	43		.	.	.	142	
Stephens	32	26	38	37	40	37	39	35	**35.5**	148	135	156	142	**145**
Madsen	31	28	39	41	44	36	41	39	**37.4**	152	140	156	147	**149**
Tubbs	36	27	41	41	43	38	41	37	**38**	150	138	156	147	**148**
Weatherford	32	30	40	39	45	37				151	140	155	.	
OR2010051	33	28	40	39	41	35	43	37	**37**	152	137	152	145	**147**

Table 5. Summary of disease responses.

	2002 Field trials			2001 Trials	2002 Stripe rust screening - USDA-ARS					
	Ceph.Stripe-CBARC	Stripe Rust - Hyslop	Crown rot Arlington	Cercosp.-Hyslop	Pullman,WA - 7/11/2002		Mt.Vernon,WA - 4/21/2002		Mt.Vernon,WA - 6/3/2002	
	% Wh hds	%	% wh hds	Response	%P.s.	Rxn	%P.s.	Rxn	%P.s.	Rxn
FS-4		0	5	S	0	0	5	2	0	0
Stephens	32	0	10	S	1	2	5	2	20	5
Madsen	12	0	0	R	0	0	5	2	15	5
Tubbs	21	5	5	R	0	0	40	8	40	8
Weatherford	6	0	.	R	.	.	.	.	.	.
OR2010051	17	0	5	R	0	0	5	2	20	8

5

Table 6. Balance paired t-tests for agronomic comparisons of ORCF-101 with check varieties Stephens, Madsen, Weatherford, and Tubbs

Check	Trait	N	Check mean	ORCF-101 mean	Std Error of difference	t-value for difference	Pr > t	Significance
Stephens	Grain yield, bu/a	15	88.5	95.8	5.246	-1.39	0.185	NS
Madsen	Grain yield, bu/a	15	95	95.8	1.849	-0.45	0.661	NS
Weatherford	Grain yield, bu/a	6	104	102	4.457	0.45	0.672	NS
Tubbs	Grain yield, bu/a	13	96.8	95.26	1.889	0.77	0.4539	NS
Stephens	Test weight, lb/bu	10	59.7	58.6	0.545	2.05	0.07	NS
Madsen	Test weight, lb/bu	10	59.1	58.6	0.276	1.81	0.104	NS
Weatherford	Test weight, lb/bu	6	59.7	60	0.445	0.94	0.392	NS
Tubbs	Test weight, lb/bu	10	58.5	58.6	0.544	-0.09	0.929	NS
Stephens	Kernel weight, g	6	37.6	37.7	2.165	-0.05	0.965	NS
Madsen	Kernel weight, g	6	33.3	37.7	0.895	-4.86	0.005	**
Weatherford	Kernel weight, g	6	35.5	37.7	0.909	-2.44	0.059	NS
Tubbs	Kernel weight, g	6	35.9	37.7	0.758	-2.31	0.069	NS
Stephens	Grain protein, %	6	10.1	10.1	0.382	-0.57	0.595	NS
Madsen	Grain protein, %	6	9.7	10.1	0.278	0.18	0.864	NS
Weatherford	Grain protein, %	6	10.2	10.1	0.445	0.26	0.803	NS
Tubbs	Grain protein, %	6	9.8	10.1	0.403	-0.83	0.446	NS
Stephens	Plant height, in	8	35.5	37	0.598	-2.51	0.04	*
Madsen	Plant height, in	8	37.4	37	0.68	0.55	0.598	NS
Weatherford	Plant height, in	6	37.2	37.7	0.749	1.56	0.18	NS
Tubbs	Plant height, in	8	38	37	0.655	1.53	0.171	NS
Stephens	Heading date, from 1/1	4	145	147	1.8	-0.7	0.537	NS
Madsen	Heading date, from 1/1	4	149	147	0.85	2.63	0.078	NS
Weatherford	Heading date, from 1/1		.	.	.	.	.	.
Tubbs	Heading date, from 1/1	4	148	147	1.33	1	0.391	NS

Table 7. End-use quality analyses from 9 locations of grain samples conducted through USDA-ARS WWQL, Pullman, WA.
Proc GLM analyses with Balanced Paired t test Design.

Obs	Variety	Trait	P-value	LSD	Variety High	Mean High	Variety Low	Mean Low	Significance	N
1	MADSEN	Test Wt. Lb/bu	0.28	1.68	MADSEN	61.12	OR2010051	60.32	NON	6
2	STEPHENS	Test Wt. Lb/bu	0.83	1.73	STEPHENS	60.26	OR2010051	60.09	NON	9
3	TUBBS	Test Wt. Lb/bu	0.01	0.62	OR2010051	60.75	TUBBS	59.75	SIGNIFICANT	6
4	MADSEN	Grain protein, %	0.37	1.95	OR2010051	11.38	MADSEN	10.63	NON	6
5	STEPHENS	Grain protein, %	0.81	1.46	OR2010051	11.52	STEPHENS	11.37	NON	9
6	TUBBS	Grain protein, %	0.11	0.66	OR2010051	10.85	TUBBS	10.35	NON	6
7	MADSEN	NIR Hardness	0.01	3.48	MADSEN	18.17	OR2010051	13	SIGNIFICANT	6
8	STEPHENS	NIR Hardness	0.22	10.28	STEPHENS	25.44	OR2010051	19.44	NON	9
9	TUBBS	NIR Hardness	0.1	9.03	TUBBS	21.33	OR2010051	14.33	NON	6
10	MADSEN	SKCS Hardness	0	2.76	MADSEN	40.48	OR2010051	31.98	SIGNIFICANT	6
11	STEPHENS	SKCS Hardness	0.13	4.07	OR2010051	35.01	STEPHENS	32.03	NON	9
12	TUBBS	SKCS Hardness	0	2.71	TUBBS	38.77	OR2010051	32.43	SIGNIFICANT	6
13	MADSEN	Kernel wt., g	0.03	2.69	OR2010051	37.53	MADSEN	34.38	SIGNIFICANT	6
14	STEPHENS	Kernel wt., g	0.04	5.08	STEPHENS	43.02	OR2010051	37.58	SIGNIFICANT	9
15	TUBBS	Kernel wt., g	0.85	1.7	TUBBS	37.68	OR2010051	37.55	NON	6

Table 7. End-use quality analyses from 9 locations of grain samples conducted through USDA-ARS WWQL, Pullman, WA.
Proc GLM analyses with Balanced Paired t test Design.

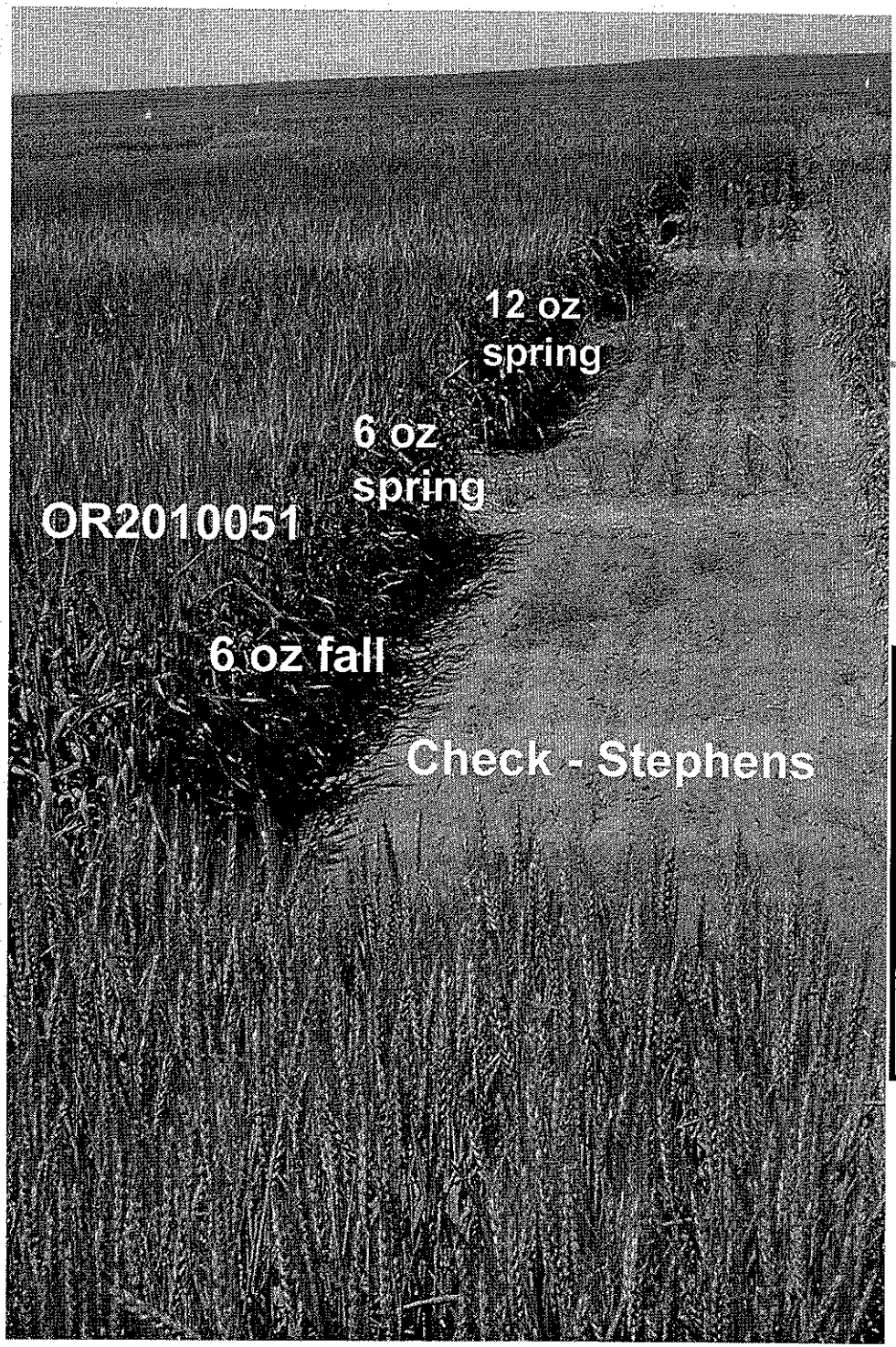
Obs	Variety	Trait	P-value	LSD	Variety High	Mean High	Variety Low	Mean Low	Significance	N
16	MADSEN	S Dev. of Kernel wt.	0.27	1.63	OR2010051	8.5	MADSEN	7.72	NON	6
17	STEPHENS	S Dev. of Kernel wt.	0.43	1.02	STEPHENS	8.7	OR2010051	8.33	NON	9
18	TUBBS	S Dev. of Kernel wt.	0.33	0.95	TUBBS	8.78	OR2010051	8.38	NON	6
19	MADSEN	Flour Yield, %	0.05	1.67	MADSEN	68.15	OR2010051	66.52	NON	6
20	STEPHENS	Flour Yield, %	0.7	2.2	OR2010051	66.8	STEPHENS	66.42	NON	9
21	TUBBS	Flour Yield, %	0.93	1.77	OR2010051	66.4	TUBBS	66.33	NON	6
22	MADSEN	Break flour yield, %	D 0.03	2.07	MADSEN	48.82	OR2010051	46.38	SIGNIFICANT	6
23	STEPHENS	Break flour yield, %	D 0.28	2.21	OR2010051	45.87	STEPHENS	44.76	NON	9
24	TUBBS	Break flour yield, %	D 0.28	1.27	OR2010051	46.92	TUBBS	46.32	NON	6
25	MADSEN	Flour ash, %	0.74	0.02	MADSEN	0.44	OR2010051	0.44	NON	6
26	STEPHENS	Flour ash, %	0.09	0.03	OR2010051	0.42	STEPHENS	0.39	NON	9
27	TUBBS	Flour ash, %	0.02	0.02	TUBBS	0.44	OR2010051	0.42	SIGNIFICANT	6
28	MADSEN	Milling Score	0.04	1.83	MADSEN	80	OR2010051	78.1	SIGNIFICANT	6
29	STEPHENS	Milling Score	0.57	3.98	STEPHENS	80.66	OR2010051	79.63	NON	9
30	TUBBS	Milling Score	0.12	2.48	OR2010051	79.23	TUBBS	77.45	NON	6

Table 7. End-use quality analyses from 9 locations of grain samples conducted through USDA-ARS WWQL, Pullman, WA.
Proc GLM analyses with Balanced Paired t test Design.

Obs	Variety	Trait	P-value	LSD	Variety High	Mean High	Variety Low	Mean Low	Significance	N
31	MADSEN	Flour protein, %	0.33	1.34	OR2010051	9.42	MADSEN	8.85	NON	6
32	STEPHENS	Flour protein, %	0.71	1.2	OR2010051	9.71	STEPHENS	9.51	NON	9
33	TUBBS	Flour protein, %	0.01	0.4	OR2010051	9.12	TUBBS	8.45	SIGNIFICANT	6
34	MADSEN	RVA Starch viscosity	0.01	5.54	OR2010051	124.67	MADSEN	115.33	SIGNIFICANT	6
35	STEPHENS	RVA Starch viscosity	0.45	14.67	STEPHENS	133.29	OR2010051	128.43	NON	7
36	TUBBS	RVA Starch viscosity	0.06	18.87	OR2010051	131.33	TUBBS	113.33	NON	6
37	MADSEN	Flour swelling volume, cc	0.29	1.76	OR2010051	22.85	MADSEN	22.03	NON	6
38	STEPHENS	Flour swelling volume, cc	0.95	1.73	STEPHENS	22.18	OR2010051	22.13	NON	8
39	TUBBS	Flour swelling volume, cc	0.09	1.34	OR2010051	23.65	TUBBS	22.53	NON	6
40	MADSEN	Mixgr. Absorption	0.63	1.41	MADSEN	55.4	OR2010051	55.12	NON	6
41	STEPHENS	Mixgr. Absorption	0	1.12	OR2010051	55.67	STEPHENS	55.67	NON	9
42	TUBBS	Mixgr. Absorption	0.05	0.5	OR2010051	55.23	TUBBS	54.73	SIGNIFICANT	6

Table 7. End-use quality analyses from 9 locations of grain samples conducted through USDA-ARS WWQL, Pullman, WA.
Proc GLM analyses with Balanced Paired t test Design.

Obs	Variety	Trait	P-value	LSD	Variety High	Mean High	Variety Low	Mean Low	Significance	N
43	MADSEN	Cookie diameter, cm	0.96	0.41	OR2010051	9.33	MADSEN	9.32	NON	6
44	STEPHENS	Cookie diameter, cm	0.73	0.27	STEPHENS	9.28	OR2010051	9.24	NON	9
45	TUBBS	Cookie diameter, cm	0	0.08	OR2010051	9.38	TUBBS	9.11	SIGNIFICANT	6
46	MADSEN	Sponge cake volume, cc	0.46	66.16	OR2010051 1	268.33	MADSEN	1247.5	NON	6
47	STEPHENS	Sponge cake volume, cc	0.89	105.98	OR2010051 1	234.38	STEPHENS	1228.13	NON	8
48	TUBBS	Sponge cake volume, cc	0.31	43.7	OR2010051 1	280.83	TUBBS	1261.67	NON	6



2002 Pendleton

Clearfield Efficacy Trial

Three rates of Beyond™ herbicide, spring and fall applied

Grain yields	0 oz Control	4 oz Spring	6 oz Spring	12 oz Spring
ORCF-101	69.9	88.6	93.7	90.8
Stephens	77.6	0	0	0
FS-4 (CV9804)	82.7	89.8	90.4	85.7

4 rep, split plot design

CV = 9.5

Oregon State University Seed Laboratory

Corvallis, Oregon 97331
(Member Association of Official Seed Analysts)

Phone: (541) 737-4464
Fax: (541) 737-2126
http://www.oscs.orst.edu

200300286

Report of Seed Analysis

NAMES AND ADDRESSES:	DATE RECEIVED	DATE COMPLETED	TEST NO
Jim Peterson **OSU CROP & SOIL SCIENCE** **ROOM 231B** **CORVALLIS OR 97331**	**04-23-2003**	**04-24-2003**	**64493**

SENDERS INFORMATION*

KIND: **Wheat**
VARIETY:
GENUS/SPECIES: **Triticum aestivum**
LOT NUMBER: **ORCF-101**
SIZE OF LOT: **Not Stated**
FIELD NUMBER: **Not Stated**
SAMPLE TYPE: **Commercial**
OTHER INFORMATION: **2002 FSD-WA**

*The information provided here is that of the sender and not of the laboratory.

This sample has been examined for: **PHENOL STAINING REACTION**

==========

Found:

Phenol Color Reaction:

Ivory	**38.0%**
Fawn	**7.0%**
Light Brown	**55.0%**
Brown	**0.00%**
Brown-Black	**0.00%**
Mixture	**0.00%**

TEST CODES AND FEES: **ph-$45.00**

RULES FOLLOWED OTHER THAN AOSA: _____ SIGNATURE _____

The purity and germination test results reported on this form have been carried out in accordance with AOSA rules unless otherwise specified. Test results reflect the condition of the submitted sample and may not reflect the condition of the seed lot from which the sample was taken.

REPRODUCE LOCALLY. Include form number and edition date on all reproductions. FORM APPROVED - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S) State of Oregon Acting by and through the State Board of Higher Education on behalf of Oregon State University

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*
c/o Office of Technology Transfer
Oregon State University
312 Kerr Administration Bldg.
Corvallis, OR 97331-2140

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER: OR2010051

3. VARIETY NAME: ORCF-101

5. TELEPHONE *(Include area code)*: (541) 737-0674

6. FAX *(Include area code)*: (541) 737-3093

7. PVPO NUMBER: 200300286

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** [X] YES [ ] NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** [XX] YES [ ] NO

10. Is the applicant the original owner? [XX] YES [ ] NO **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
[XX] YES [ ] NO **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
[XX] YES [ ] NO **If no, give name of country**

11. Additional explanation on ownership *(Trace ownership from original breeder to current owner. Use the reverse for extra space if needed)*:
ORCF-101 possessed Clearfield™ herbicide tolerance technology owned by BASF Corporation under Patents 6,211,438; 6,211,439; and 6,222,100. The technology is licensed to Oregon State University through contractual agreement and ownership rights of the variety reside with Oregon State University.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.